Amendments to the Claims

The following listing of claims replaces all prior versions of claims in the application:

Listing of Claims:

1-66. (Canceled)

67. (Previously presented) A method for identifying a patient as having an increased risk of having children with PXE, the method comprising:

a) interrogating an MRP6 nucleic acid in a patient sample for the presence of an MRP6 allele known to be a co-segregator with a PXE phenotype; and

b) identifying said patient as having an increased risk of having children with PXE if the allele from step a) is detected in said-MRP6 nucleic acid.

68. (Previously presented) A method for identifying a patient as having an increased risk of developing a PXE associated symptom, the method comprising:

a) interrogating an MRP6 nucleic acid in a patient sample for the presence of an MRP6 allele known to be a co-segregator with a PXE phenotype; and

b) identifying said patient as having an increased risk of developing a PXE associated symptom if the allele from step a) is detected in said MRP6 nucleic acid.

69. (Previously presented) The method according to claim 68, wherein said PXE associated symptom is cardiovascular disease.

70. (Previously presented) The method according to claim 68, wherein said PXE associated symptom is macular degeneration.

71-72. (Canceled)

73. (Previously presented) A method for testing a patient for the presence of a PXE mutation, the method comprising the steps of:

a) interrogating a patient sample for a mutation shown to be associated with PXE, the mutation being in the MRP6 gene, and the mutation is selected from the group consisting of:

i) at codon 1114, nucleotide 3341G>C;

ii) at codon 1138, nucleotide 3413G>A;

iii) at codon 1141, nucleotide 3421C>T;

iv) at codon 1259, nucleotide 3775delT;

v) at codon 1298, nucleotide 3892G>T;

vi) at codon 1302, nucleotide 3904G>A;

vii) at codon 1303, nucleotide 3907G>C;

viii) at codon 1314, nucleotide 3940C>T; and

ix) at codon 1321, nucleotide 3961G>A; and

b) identifying the patient as having a PXE mutation if the mutation from step a) is detected in the MRP6 gene.

74-78. (Withdrawn)

79. (Previously presented) A method for detecting a patient as having an increased risk of developing PXE, the method comprising:

a) interrogating an MRP6 nucleic acid in a patient sample;

b) determining an abnormal presence or absence of at least one nucleic acid fragment or sequence in the patient's MRP6 nucleic acid compared to a normal control; and

c) identifying said patient as having an increased risk of developing PXE based on the determination in step b).

80. (Previously presented) A method for screening a patient for the presence of a MRP6 gene mutation, the method comprising:

a) interrogating an MRP6 nucleic acid in a patient sample to determine an MRP6 nucleic acid sequence; and

b) identifying said patient as having a MRP6 gene mutation by comparing the MRP6 nucleic acid sequence from step a) to a normal MRP6 nucleic acid sequence.